

**Follow-up Audit  
Food Protection Program**

June 2004

**City Auditor's Office  
City of Kansas City, Missouri**

June 29, 2004

Honorable Mayor and Members of the City Council:

We conducted this follow-up audit of the food protection program to look at changes made by the city intended to make food bought and served in Kansas City safer. In our January 2001 audit, we found that the city's food laws were outdated and that the city had too few inspectors.

Since our 2001 audit, the city adopted an up-to-date food code and voters approved higher permit and inspection fees. The Health Department used increased revenue from the fees to hire additional inspectors and improve their tools for data collecting, reporting, and scheduling. The Health Department also made a number of other changes consistent with increasing food safety, such as implementing a more rigorous pre-opening inspection process and assembling a food protection advisory board.

The city made significant progress since 2001, but gaps remain in meeting the required inspection frequency. City inspectors have not inspected all establishments as frequently as required by the city's food code. About 55 percent of the inspections of medium- and high-risk establishments were completed within 180 days. The food code requires most establishments to be inspected at least once every six months.

We recommend that the Director of Health inspect all medium- and-high risk establishments at least once every six months. We also recommend that the Director of Health require regular reports on inspection frequency.

We provided draft reports to the City Manager and the Director of Health on May 10, 2004, for review and comment. Management's response is appended. We appreciate the courtesy and cooperation of Health Department staff during the audit. The audit team for this project was Deborah Jenkins and Michael Eglinski.

Mark Funkhouser  
City Auditor

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# Follow-up Audit: Food Protection Program

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## Introduction

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## Objectives

We conducted this audit of the Food Protection Program under authority of Article II, Section 13 of the city charter, which establishes the Office of the City Auditor and outlines the City Auditor's primary duties.

A performance audit systematically examines evidence to independently assess the performance and management of a program against objective criteria. Performance audits provide information to improve program operations and facilitate decision-making.<sup>1</sup> We designed this follow-up audit to answer the following questions:

- Does the city inspect all of the food establishments it should?
- Does the city inspect those establishments as frequently as planned?
- Does the city focus on establishments where the risk is greatest?

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## Scope and Methodology

This follow-up audit looked at changes made by the city intended to make food bought and served in Kansas City safer. Our methods included:

- Interviewing Health Department staff.
- Reviewing city ordinances and the city's Food Code.
- Reviewing Health Department documents including Food Protection Program policies, inspection reports, and training materials.
- Attending a Food Protection Advisory Board meeting and reviewing meeting minutes from 2001 through 2003.
- Analyzing and assessing the reliability of data in the Food Protection Program's inspection database.

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<sup>1</sup> Comptroller General of the United States, *Government Auditing Standards* (Washington, DC: U.S. Government Printing Office 2003), p. 21.

We conducted this follow-up audit in accordance with government auditing standards. No privileged or confidential information is omitted from the report.

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## **Background**

### **Foodborne Illness**

Preventing foodborne illness continues to be a major public health challenge. While the food supply in the United States is one of the safest in the world, the Centers for Disease Control and Prevention (CDC) estimates that 76 million Americans get sick, more than 300,000 are hospitalized, and 5,000 die each year from foodborne illness.

### **City's Role in Food Safety**

City government makes and enforces laws about food sold and served in Kansas City. City employees inspect places that sell and serve food and check that these places operate according to the city's food laws. They investigate complaints about food establishments and reports of food-related illnesses. They also inspect emergencies and disasters such as fires, floods, or power outages at food establishments, and wrecks of food transport vehicles, to ensure the disposal of contaminated and perishable foods. City employees review building plans to make sure new food establishments can safely prepare food and keep food safe, and they teach classes on food safety for people who handle food and for managers of food establishments. Finally, city employees take enforcement actions, such as suspending permits and closing establishments, when necessary to keep the food supply safe.

People who sell and serve food must buy permits from the city, and the money from the permits pays the cost of enforcing food safety laws. The city spent about \$1 million to enforce the food safety laws in fiscal year 2004.

### **Summary of 2001 Audit**

Our 2001 performance audit found that the city's food protection laws were outdated and there were too few inspectors to enforce them. We recommended that the city update the laws and ask voters to approve higher permit fees to fund a food protection program large enough to conduct the needed inspections.

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## **Findings and Recommendations**

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### **Summary**

After our original audit, the city adopted an up-to-date food code and voters approved higher permit and inspection fees. The Health Department used the increased revenue from the fees to hire additional inspectors and improve their tools for data collection, reporting, and scheduling. The Health Department also made a number of other changes – consistent with increasing food safety – in the Food Protection Program. It adopted an inspection schedule focusing resources on higher risk establishments, began offering food safety classes, authorized inspectors to require training, implemented a more rigorous pre-opening inspection process, and assembled a Food Protection Advisory Board.

The city has made significant progress, but gaps remain in keeping up with inspection frequency. The Food Code requires at least one inspection every six months for most establishments. In a sample of 2002 and 2003 inspection records for medium- and high-risk establishments, the Food Protection Program inspected about 55 percent of the establishments that frequently.

We recommend that the Health Director ensure inspection frequency requirements be met and require regular reports on inspection frequency.

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### **City Made Changes Consistent With Increasing Food Safety**

The City Council updated the food protection laws in March 2001, and voters approved higher permit and inspection fees in August 2001. The city used the increased revenue to hire more inspectors and to improve tools for data collection, reporting, and scheduling. The Food Protection Program also began focusing inspection resources on establishments that pose a higher risk of foodborne disease outbreaks, made pre-opening inspections more rigorous, and began offering food safety classes. The City Council also created a Food Protection Advisory Board to advise the Health Director.

#### **City Updated the Food Code**

The City Council adopted the Food and Drug Administration's (FDA) 1999 Model Food Code, with modifications, as the city's food code in

### *Follow-Up Audit: Food Protection Program*

March 2001. Up-to-date scientific principles of food safety now guide the city's food safety rules and inspections.

The 2001 audit found that the city used out-dated food protection laws based on FDA guidelines established in 1976 and 1982. The FDA routinely revised the guidelines, but the city's food code had not kept pace with the revisions. We recommended that the Health Director propose a city food code based on contemporary FDA guidelines.

### **Voters Approved Raising Permit and Inspection Fees**

Voters approved increasing the food permit and inspection fees and added a new fee for reviewing plans of new establishments on August 7, 2001. (See Exhibit 1.)

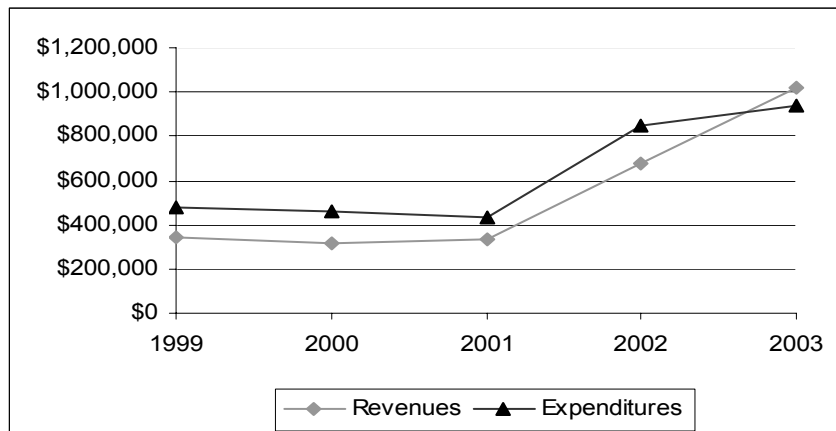
Exhibit 1. Annual Permit Fees Comparison

Type of Establishment	Fee before 2001	Current Fee
Restaurant, tavern, cafeteria (fee based on number of employees)	\$100 to \$175	\$275 to \$480
Retail food store (fee based on size of store)	\$75 to \$375	\$205 to \$1,030
Mobile unit / pushcart	\$50	\$140
Ice cream street vendor	\$15	\$25

Source: Health Department, Food Establishment Permit Applications.

In the 2001 audit, we found that the city had not increased permit fees since 1989. The direct costs of the Food Protection Program exceeded fee revenue. The city had too few inspectors to keep up with the inspection frequency requirements. We recommended that the city increase permit fees to fund more inspectors, support staff, and equipment in order to adequately protect the public against the risk of foodborne illness. Fee revenues now exceed the program's expenses. (See Exhibit 2.)

Exhibit 2. Program Expenditures and Revenues, FY 1999–2003



Source: AFN.

**The city hired more inspectors with the increased revenue.** At the time of our original audit, there were eight full-time equivalent (FTE) inspector positions and one field supervisor position. Today there are 14 FTE inspector positions and two field supervisor positions. With the additional inspectors, the program is doing more inspections. (See Exhibit 3.)

Exhibit 3. Number of Inspections Performed

Calendar Year	Routine Inspections	Re-inspections
1999	3,000	546
2000	1,724	730
2001	3,219	910
2002	4,775	875
2003	4,193	590

Source: Health Department, Food Protection Program.

**The Food Protection Program also bought better tools for data collection, reporting, and scheduling.** The program purchased software designed specifically for food safety inspections. It also bought laptop computers and portable printers for the inspectors to take into the field. Inspectors can enter inspection results and print inspection reports on site.

Inspectors used to complete inspection reports and create their schedules by hand.

### **Health Department Adopted an Inspection Schedule Based on Risk**

The Health Department began focusing inspection resources on establishments that pose a higher risk of foodborne disease outbreaks. Inspectors collect information about the types of food prepared, how food is prepared and held, the average number of meals served each day, and the type of population served. The information reveals which establishments have the greatest potential to put vulnerable groups (children, the elderly, people who are very ill) or large numbers of consumers at risk. Inspectors use the information to assign a risk level to each establishment. The risk level helps determine how frequently the program plans to inspect the establishment – at least once a year for most low-risk and at least twice a year for medium-and high-risk establishments.

At the time of the original audit, the Food Code required the city to inspect all food establishments, regardless of the type of food operation, at least once every six months.



**“What is a high-, medium-, or low-risk establishment?”**

Some establishments have a greater potential for causing a foodborne illness outbreak simply because of the type of foods and preparation methods they use. In general, the more steps food goes through before being served, the greater the opportunity for mishandling and contamination. Another factor in an establishment's risk rating is the population they serve because healthy adults are better able to fight off the bacteria, viruses, and other toxins that cause foodborne illnesses than vulnerable groups like children, the elderly, and the very ill. A school cafeteria is an example of a high-risk establishment. Most convenience stores fall into the low-risk category because they usually sell only pre-packaged foods and foods that do not easily support the growth of bacteria.

**Pre-Opening Inspections More Rigorous**

Pre-opening inspections<sup>2</sup> now focus on factors known to cause foodborne illness. Inspectors review menus and the flow of food from delivery through preparation and serving, as well as check the physical structure of an establishment. The proprietor must complete a checklist before a pre-opening inspection is scheduled. The checklist outlines what the inspector will look at during the onsite inspection. The checklist also helps the inspector evaluate the food safety knowledge of the proprietor.

At the time of the original audit, the pre-opening inspection process focused primarily on the physical structure of an establishment (e.g., the number and location of handsinks), and the proprietor was not required to complete a pre-opening checklist.

**Health Department Began Offering Food Safety Classes**

The program offers a class for food managers about once every two months and awards a certificate of completion to those who score 70 percent or better on the examination given at the end of the class. The program also offers general food-handler classes for non-managers about once a month. The program trained 883 people in 2002 and 581 in 2003.

At the time of the original audit, the Health Department did not offer food safety classes.

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<sup>2</sup> The city conducts pre-opening inspections on new establishments and existing establishments that change owners before issuing a permit authorizing the establishment to open.

### **Inspectors Can Mandate Training**

During pre-opening and routine inspections, inspectors evaluate the food safety knowledge of the establishment's manager. If the manager demonstrates inadequate knowledge, the inspector can require food safety training. In addition to attending the training, the manager must pass an exam at the end of the class.

At the time of our original audit, inspectors could not require food safety training.

### **City Council Created Food Protection Advisory Board**

The city created a board to “advise the director on the processes undertaken by the Food Protection Program, including but not limited to fee charges and food code revisions.”<sup>3</sup> The Board meets about every other month. The Board looks at issues like the development of an industry recognition program, whether food pantries should have permit fees waived, increasing participation in food safety month activities, and mandatory food handler training. The Board has nine members representing the food industry, the medical and academic communities, the general public, and the Food Protection Program staff.

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## **Significant Progress Made Since 2001, Gaps Remain**

The city made changes designed to improve food safety and is doing more inspections than before. However, the city is not inspecting as frequently as the Food Code requires, and the Health Director has not been receiving inspection frequency information.

### **City Does Not Meet Inspection Frequency Requirements**

The city does not meet the inspection frequency required by the Food Code. About 55 percent of the routine inspections of medium- and high-risk establishments were completed within 180 days of the prior inspection. The program conducted routine inspections at least once every seven months on 76 percent of these establishments. (See Exhibit 4.)

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<sup>3</sup> Ordinance 010356, Sec 30-78.

Exhibit 4. Interval Between Routine Inspections of Medium- and High-Risk Establishments (2002 and 2003)

Days Between Routine Inspections	Number of Inspections	Percent of Total	Cumulative Percent
30	44	1%	1%
60	50	1%	3%
90	144	4%	7%
120	333	9%	16%
150	584	16%	32%
180	874	24%	55%
210	754	21%	76%
240	373	10%	86%
270	195	5%	92%
300	113	3%	95%
330	65	2%	96%
360	47	1%	98%
More than 360	83	2%	100%

Source: Food Protection Program inspection database.

The Food Code requires the city to inspect food establishments "at least once every six months" with some exceptions.<sup>4</sup> For example, the city can inspect low-risk establishments that sell only coffee and other beverages, and snacks like chips and pretzels less than once every six months. Although the city does not use this approach, the code would allow the city to contact higher risk places by phone rather than make an on-site inspection in certain circumstances.

Although the program schedules routine inspections about six months apart for medium- and high-risk establishments, management told us they consider two inspections a year acceptable for most establishments, even if they are more than six months apart.

The city should inspect all medium- and high-risk establishments at least once every six months to meet the Food Code requirements.

### **Health Director Should Require Inspection Frequency Reports**

Although the program maintains a database of inspection information, the Health Director has not been getting inspection frequency reports. Routine tracking and reporting of how well the program is keeping up with inspections is a valuable management tool. It provides practical information for deciding how to distribute resources and whether resources are sufficient to get the job done. It also serves as a control to determine compliance with the Food Code inspection frequency requirements.

<sup>4</sup> Kansas City, Missouri, Food Code, Sec. 8-401.10(A).

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## **Recommendations**

1. The Health Director should ensure all medium- and high-risk establishments are inspected at least once every six months as required by the Food Code.
2. The Health Director should require regular reports on inspection frequency.



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## **Appendix A**

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### **City Manager's Response**





# Office of the City Manager

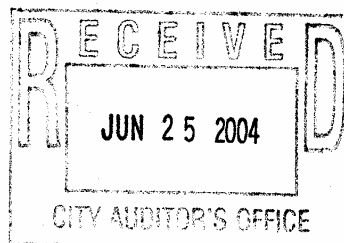
## Memorandum

**DATE:** June 25, 2004

**TO:** Mark Funkhouser, City Auditor

**FROM:** Wayne A. Cauthen, City Manager <sup>W.A.C.</sup>

**SUBJECT:** Food Protection Audit Response



The recent audit of the Food Protection Program conducted by your department has surfaced two recommendations that must be addressed to increase the efficacy of the Food Protection Program of the Kansas City Health Department. I find the audit to be a fair and accurate report. As the report indicates, the City had made significant progress in this important activity. This response will address the recommendations set forth in your report, and other significant issues for the Food Protection Program.

### Recommendation #1

The Health Director should ensure all medium and high-risk establishments are inspected at least once every six months as required by the Food Code.

The Department agrees in part with this recommendation. The Food Protection Program conducted 92 percent of the second inspections of all medium and high-risk establishments within 9 months and 98 percent within one year. When the 1999 Food Code was adopted by the City in 2001, computations on the number of inspectors required was based on a goal of achieving inspections of medium and high risk food establishments twice a year as opposed to once every six months. The Food Protection Program is recommending a revision to the city ordinance to adopt the 2001 Food Code and also clarify the inspection frequency. In order to reflect the current 2001 Food Code, the Food Protection Program will develop an internal policy that establishes the following specific benchmarks for this aspect of program operations, such as:

- 60% of establishments inspected twice within 6 months;
- 75% of establishments inspected twice within 7 months;
- 90% of establishments inspected twice within 8 months;
- 95% of establishments inspected twice within 9 months;
- 98% of establishments inspected twice within 10 months.

This acknowledgement will allow for some randomness in the inspection schedules as well as an ability to respond to other direct or indirect variables.

See Comment,  
Appendix B, p. 17.



In addition, the Program is working with the Food Protection Program Advisory Board to develop criteria that would identify those establishments that would be inspected even more frequently. As reported in the performance audit conducted by the City Auditor's Office in 2000, the Food Protection Program conducted 1,724 routine inspections. This was due to fewer numbers of inspectors, and recruitment and retention issues at the time. In 2003, the program conducted 4,193 inspections, representing a 143% increase in the number of inspections. This significant increase in inspections was achieved, despite only a 77% increase in inspection staff. As you identified, the program has demonstrated a significant improvement in conducting inspections and the Department believes that these facts should be highlighted in the report.

**Recommendation #2**

The Health Director should require regular reports on inspections frequency.

The Department agrees with this recommendation. Since March 19, 2004, Dr. Archer has been receiving weekly updates on the program's inspection frequency. The program will also provide Dr. Archer with a monthly report that will delineate the program's operational performance, i.e., including the annual plan for conducting inspections and the monthly actual inspections conducted versus the planned inspections for the month.

Another significant issue contributes to the program's inability to conduct the inspections every six months. The Department was conservative in projecting the number of inspectors that were needed, and did not take into consideration the rapid and broad geographic expansion in food establishments in the City. For example, in 2003 alone there were 154 new establishments opened in Kansas City. Many of these are located in distant areas of the community. More recently, the Zona Rosa development has included 12 new establishments. All of these require extensive plan reviews and pre-opening inspections. The department followed the model set by the 1999 Recommendations of the United States Public Health Service Food & Drug Administration Food Code guideline for calculating the number of inspectors required for a jurisdiction. FDA recommended 8 to 10 hours be allocated per establishment per year and the total hours required will vary somewhat depending on such things as the type of establishments and geographical distribution. The department utilized the 8 hours allocation but did not factor in the vast geographical distribution of food establishments in the City. The Department will consider using anticipated fees for required training under the proposed new code to increase the number of inspectors to accommodate this added demand.

Cc: Rex Archer, M.D., M.P.H., Director of Health

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## **Appendix B**

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### **City Auditor's Comment on City Manager's Response**



This appendix is the City Auditor's written comment on the City Manager's response to this audit. The City Manager's response is Appendix A.

Section 8-401.10 of the Food and Drug Administration's 2001 Food Code addresses inspection frequency and specifies that, with certain exceptions, the "regulatory authority shall inspect a food establishment at least once every 6 months."